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## What is claimed is:

- 1. A polyacrylate obtainable by thermal crosslinking of a polymer mixture comprising the following components:
- 5 a) a polyacrylate copolymer of the following monomers
  - a1) acrylates and/or methacrylates of the following formula  $CH_2 = CH(R^1)(COOR^2),$  where  $R^2 = H$  or  $CH_3$  and  $R^2$  is an alkyl chain with 1-20 carbon atoms, at 65-99% by weight, based on a),
  - a2) olefinically unsaturated monomers containing functional groups,
     at 0-15% by weight, based on a),
  - a3) acrylates and/or methacrylates whose alcohol component contains tert-butoxycarbonyl (BOC) and/or hydroxyl groups,
     at 1-20% by weight, based on a),
     at 80-99.8% by weight, based on the polymer mixture of claim 1,
  - b) a polymerization regulating photoinitiator
     at 0.1-15% by weight, based on the polymer mixture of claim 1,
  - c) difunctional isocyanate and/or bifunctional epoxide
     at 0.1-5% by weight, based on the polymer mixture of claim 1.
  - The polyacrylate as claimed in claim 1, wherein
    component b) is used at 0.5-1.5% by weight, based on the polymer mixture, and/or
    component c) is used at 0.5-1% by weight, based on the polymer mixture.
- 25 3. A process for preparing a crosslinked polyacrylate, wherein the polymers to be crosslinked are first protected by introduction of tert-butoxycarbonyl groups and the crosslinking takes place only after the deprotection, by thermal treatment of the now deprotected polyacrylates.
- 30 4. A process for preparing a crosslinked polyacrylate, wherein

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the polymers to be crosslinked are first protected by introduction of tert-butoxycarbonyl groups and the crosslinking takes place only after the deprotection, by adding crosslinker substances and by thermal treatment of the now deprotected polyacrylates.

- 5 5. A process for preparing a crosslinked polyacrylate, wherein the polymers to be crosslinked are first protected by introduction of tert-butoxycarbonyl groups and the crosslinking takes place only after the deprotection, by adding difunctional or polyfunctional isocyanates and by thermal treatment of the now deprotected polyacrylates.
  - 6. A process for preparing a crosslinked polyacrylate, wherein the polymers to be crosslinked are first protected by introduction of tert-butoxycarbonyl groups and the crosslinking takes place only after the deprotection, by adding difunctional or polyfunctional epoxides and by thermal treatment of the now deprotected polyacrylates.
  - 7. The process as claimed in any of the above claims wherein the protective groups are eliminated by irradiation with UV light.
  - 8. The process as claimed in any of the above claims wherein to eliminate the protective groups the polymer mixture is irradiated with ultraviolet light through a mask in such a way that only certain regions of the polymer mixture are exposed to the UV radiation.
- 25 9. The use of a polyacrylate of one of the above claims as a pressure-sensitive adhesive composition.
  - 10. The use of a polyacrylate of one of the above claims as a pressure-sensitive adhesive composition for an adhesive tape, where the acrylic pressure-sensitive adhesive composition is present as a single- or double-sided film on a backing.